

Title (en)

An ultrasonic device for measuring the rate of flow of fluid in a duct.

Title (de)

Ultraschallvorrichtung zum Messen der Durchflussrate einer Flüssigkeit in einer Leitung.

Title (fr)

Dispositif ultrasonique pour la mesure de vitesse de débit de fluide dans un conduit.

Publication

EP 0273385 A2 19880706 (EN)

Application

EP 87119121 A 19871223

Priority

IT 6798286 A 19861230

Abstract (en)

An ultrasonic device for measuring the rate of flow of fluid in a duct (2) comprising, disposed in diametrically opposite positions in the duct: - an ultrasonic signal transmitter (3) and two ultrasonic signal receivers (4, 4') operating unequivocally and simultaneously and in which the straight lines (5, 5') joining these receivers (4, 4') with the transmitter (3) form respective predetermined angles of inclination with respect to the axis of the duct (2), and including electronic means (16, 21) which receive the signals produced by the receivers (4, 4') and produce therefrom a first signal (20) in dependence on the phase difference between the signals received by the receivers (4, 4'), these electronic means processing this first signal (20) together with a second received signal (22) proportional to the pressure of the fluid in the duct (2) to form an output signal (25) indicative of the mass flow rate of fluid in the duct (2).

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G01F 1/66

IPC 8 full level

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CPC (source: EP US)

G01F 1/662 (2013.01 - EP US); **G01F 1/667** (2013.01 - EP US); **G01F 1/86** (2013.01 - EP US)

Cited by

JP2012103149A; EP2045583A1; DE4118809A1; DE102008055031A1; US5406854A; US2012014210A1; CN104197996A; FR2781047A1; EP2639559A4; WO9404890A1; US8978482B2; US11536599B2; WO2004036151A1; WO0003206A1

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